

**BY ORDER OF THE COMMANDER
419TH FIGHTER WING**



AIR FORCE INSTRUCTION 11-301 VOLUME 1

**419TH FIGHTER WING
Supplement 1**

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Flying Operations

AIRCREW LIFE SUPPORT (ALS) PROGRAM

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The OPR for this supplement is 419 OSF/OSL (CMSgt Anderson). This supplement implements and extends guidance of Air Force Instruction (AFI) 11-301V1, 19 July 2002. It establishes squadron objectives, responsibilities, administrative, deployment and contingency operations, training, clothing and aircrew life support equipment requirements. This supplement applies to all aircrew assigned to the 419th Fighter Wing (419 FW) and those who are attached for flying.

SUMMARY OF CHANGES

This document is substantially revised and must be completely reviewed. This supplement reflects new guidance as prescribed by AFI 11-301V1.

2.10.1.1. (Added) The life support superintendent (LSS) is the Operations Group Commander's (OG/CC) point of contact for all life support functional responsibilities, issues and management. If no LSS is assigned, the senior air reserve technician (ART) or noncommissioned officer in charge (NCOIC) will assume this role.

2.11.2.1. (Added) Unit technical order (T.O.) options will be published, and posted with the technical order library. Compliance with mandatory option items will be accomplished on all applicable aircrew life support equipment (**Attachment 2 (Added)**).

2.11.2.2. (Added) Unit will use the Life Support T.O. Familiarization worksheet (located on the 419 FW local server), to track knowledge of technical orders, technical order changes/supplements, technical order options, publications, or messages.

2.11.15. (Added) Aircrew Protection Panel:

2.11.15.1. (Added) Host an annual Aircrew Protection Panel meeting. The aircrew protection panel is chaired and managed by the operations group life support officer (LSO) or LSS. This panel is convened at

least annually to review and take action on support associated with aircrew life support equipment configuration, inspection, modification, or control procedures and Aircrew Life Support Continuation Training (ALSCT) issues. If no LSS is assigned, the senior ART/NCOIC will assume responsibilities of the LSS. This panel meeting maybe held more often as needed.

2.11.15.2. (Added) Core panel members will consist of the LSO/LSS, senior ART and/or life support NCOIC, primary ALSCT instructor, egress, plans and scheduling, supply, quality assurance, readiness, wing safety, and survival equipment personnel. Other agencies such as intelligence, aircrew, enlisted specialty training managers, and flight medicine may be invited as necessary to assist with training issues, equipment inspection, and modification requirements, or control procedures. If there are no issues pertaining to core panel members, they are not required to attend.

2.11.15.3. (Added) Support issues that cannot be resolved at the unit level will be elevated to the numbered Air Force (NAF) and Air Force Reserve Command (AFRC) DOTSL for resolution.

2.11.16. (Added) The LSS will review the Aircrew Protection Website (APWEB) or Aircrew Life Support Equipment Record and Tracking System (ALERTS) data at least monthly. The LSS or senior ART (if the LSS is not the full time employee) will validate in APWEB/ALERTS the data information monthly.

2.11.17. (Added) The LSS will assist the quality assurance office on all issues or evaluations pertaining to life support equipment or personnel.

2.16.10.1. (Added) The LSS or senior ART, (if the LSS is not the full time employee), is responsible for the management of the life support Air Force Cost Analysis Improvement Group/Cost Per Flying Hour (AFCAIG/CPFH) program, and will assist the Logistics Group AFCAIG/CPFH Analyst to ensure funding for all life support equipment items.

4.2.2.10.1. (Added) Task evaluations will be recorded on the Air Force (AF) Information Management Tool (IMT) 803, **Report of Task Evaluations**, and loaded into the Intergraded Maintenance Data System (IMDS) for tracking of all major tasks.

5.3.5. Egress and parachute decent training (PDT) wearing aircrew chemical defense equipment will be accomplish during the period of 1 Oct through 31 Mar.

5.7.1. Passengers scheduled to fly an incentive or familiarization flight will receive as a minimum egress, PDT, and aircrew life support equipment fitting/training within 24 hours prior to flight. If the 24 hours are exceeded training will be re-accomplished.

5.7.1.1. (Added) Passenger incentive or familiarization flights away from home station are discouraged based on the lack of proper training devices or a qualified technician to perform training. If deployed to an F-16 base where training devices are available, these flights are approved with prior coordination with the OG/CC and life support equipment availability. If deployed to a non F-16 bases, these flights will be looked at on a case by case basis, with assurances that proper training devices, qualified technicians and flight equipment are available. Approval from the OG/CC is required on all away from home station incentive or familiarization flights.

6.2.7. (Added) The winter flying months for Hill Air Force Base (AFB) are defined as 15 Oct through 31 Mar. At anytime when the forecasted temperature over any portion of the flight is at or below 32 degrees Fahrenheit, winter flight clothing shall be worn. Winter flight clothing consists of CWU-36/P/CWU-45/P Flight Jacket, CWU-27/P Flight Suit, approved thermal type underwear, and authorized flight boots per

AF Instructions. Additionally CWU-18/P Trousers, CWU-64/P Cold Weather Coveralls, Sorrel type thermal boots and hoods for the CWU (Series) Flight Jacket are authorized.

6.2.8. (Added) Each aircrew member is ultimately responsible for ensuring they are adequately clothed to protect themselves in a survival situation based on climate conditions and terrain to be over flown.

6.4.2.1.1. (Added) All night vision devices (NVD) periodic inspections will be tracked in Aircrew Life Support Management System (ALSMS) or ALERTS and on a local NVD tracking worksheet. The NVD issue, pre-flight and post-flight will be documented using the local NVD use worksheet. The issue of NVD batteries, finger lights, mini-mag flashlights or micro-lights will also be tracked using the NVD equipment tracking worksheet to show issue and return after each flight.

6.4.2.1.2. (Added) Life support personnel will be available after an NVD flight to ensure each NVD is returned and secured to prevent pilferage.

6.4.3. All global positioning systems (GPS) will be inspected in accordance with (IAW) AFI-11-301V1/Air Combat Command Supplement 1, Attachment 2.

6.4.4.3. (Added) All Anti-G garments will have the following modifications accomplished IAW T.O. 14P3-6-121, *Anti-G Garments*, elastic band chart holder, black leather material to lower leg pockets, lacing flap modifications, and hook Velcro removed from hose.

6.4.7. Life Preservers will be worn on all flights by 419 FW aircrew/passengers departing or arriving Hill AFB. The OG/CC may waive this requirement at deployed locations when no over water flight is possible during any portion of the flight.

6.4.8.1. (Added) The following table lists approved additional items to be installed in the survival kit or survival vest as noted.

6.4.8.2. (Added) AA and 9-volt type batteries installed in aircrew life support equipment will have a one year service life from date of installation (DOI). All AA and 9-volt batteries will have a piece of $\frac{1}{2}$ inch wide masking tape attached to reflect DOI (MM/YY). These batteries will be tracked in ALSMS/ALERTS.

6.4.8.3. (Added) AA and 9-volt batteries will be inspected concurrent with the item in which it is installed using a multi-meter. Batteries found to have a lower voltage than what is listed on the battery will be removed from service.

6.4.8.4. (Added) A NL555 will be placed on each item (i.e., MS-2000, GPS, ENVIS) to track inspections and the expiration date. Fire flies or batteries placed in plastic bags will have a NL555 placed inside the bag to reflect battery date of inspection.

6.4.10. Survival vests will be worn on all contingencies, operational readiness exercises and operational readiness inspections or other combat exercises. Survival vest minimum equipment items are listed in AFI 11-301V1/ACC Sup1, Attachment 3. Additional items maybe added based on the Combat Search and Rescue spins for contingency operations.

6.4.11. All MBU-20/P oxygen masks will have the next inspection due date placed on the left side of hardshell next to the valve in a vertical position.

6.4.11.1. The inspection and location, when installed in an aircraft, of the CRU-94/P oxygen connector will be tracked in ALSMS/ALERTS. Each oxygen connector will have a local identification number assigned.

6.4.12.3. (Added) Personnel Lowering Devices (PLD) will be installed on all torso harness. When PLDs are worn the backrest pad will be removed from the ejection seat. If PLDs are not worn the backrest pad will be sewn in place IAW with T.O. 13A5-56-11, *Escape System Assemblies*, to prevent chaffing of the torso harness.

6.4.14. (Added) The MS-2000 Strobe Light will be installed on the torso harness to ensure daily access.

6.4.15. (Added) Contact lenses are the responsibility of the aircrew to maintain. Aircrew who wear contact lens will ensure that they deploy with enough cleaning, disinfecting and wetting solutions to last them during their entire deployment. Life support will not maintain contact lens supplies.

6.4.16. (Added) Life support personnel will not apply power to the aircraft for the purpose of raising or lowering the ejection seat for survival kit or parachute removal/installation.

6.4.17. (Added) Life support personnel are responsible for the removal/installation of aircraft installed survival kits and parachutes for routine maintenance.

6.4.18. (Added) Life support is responsible for the scheduling and tracking of survival kits and recovery parachutes using IMDS and ALSMS/ALERTS.

7.7.2. All life support personnel are considered to be in arming group B based on weapons courier activities.

7.7.3. (Added) The host base has daily accountability and control of aircrew weapons based on the Host/Tenant Agreement. When requested by the host base, life support may assist in the cleaning of aircrew weapons. Upon completion of cleaning, all aircrew weapons will require a complete inspection.

Attachment 2 (Added)**TECHNICAL ORDER OPTION LISTING**

T.O. NUMBER	PARA	ITEM	Unit Position
00-5-1		AF T.O. System	
	4-1. 5.	Writing in changes provided by interim supplements (page 4-1)	Mandatory
	4-8.4	Copies of all locally developed work cards, checklists, job lists, job guides and page supplements may be forwarded by cover letter to the MAJCOM or gaining command to be reviewed for command- wide application (page 4-6)	Mandatory
00-25-241		Parachute Logs and Records	
	2.b.	Unit information on AFTO Forms omitted	Mandatory
	3.a.1.d.	Unit information on AFTO Forms omitted	Mandatory
	3.a.1.g. NOTE	Unit information on AFTO Forms omitted	Mandatory
	3.a.4.d. NOTE	Unit information on AFTO Forms omitted	Mandatory
	4.b.	AFTO Form 392, files and entries	Maintain by Life Support in ALSMS/ALERTS
	4.c. NOTE		Authorized
00-35A-39		Instructions for Procurement, Issue, Use and Maintenance of Medical Kits	
	6.2.	Unit information on first aid kits AFTO Form 104 installed in LSE which requires sanitizing (page 2)	Mandatory
12S10-2AVS9-2		Image Intensifier Set, Night Vision Type AN/ AVS-9(V)	
	1.2.2.9.	Use of the clip-on power source for operating in the hand-held mode only	N/A
	4.1.1. NOTE	Use of the battery extenders for use of the full size 3.5 AA lithium batteries	Authorized
	5.3.1.	The inspection interval may be altered at the option of the MAJCOM	Not Authorized
14-1-4		Identification Marking of Air Force Clothing and Personal Type Flying Equipment	
	2-6 NOTE 2	Use of local control numbers	Mandatory
	4-2.b.1.a. NOTE	Use local control numbers	Mandatory
	4-2b(3)	Application of Marking	Tape positioned vertical
14D1-1-1		Styles of parachutes to be used in various aircraft	
14D1-2-1		Personnel parachutes	
	3-4e.2(h)	Routing of chest strap through V-ring	Authorized
	3-50.c. NOTE	Waiver for 6 foot height restriction on PLD Training	Not Authorized

T.O. NUMBER	PARA	ITEM	Unit Position
14D3-11-1		EMER PERS RCVY PARA (CHEST, BACK, SEAT STYLE, AND TORSO HARNESS)	
	3-10.a	Unit information on AFTO Forms omitted	Mandatory
		Waiver of preflight inspection	Not Authorized
	5-13.ac.(2)	Securing harness accessory rings (page 5-106) (Required for units attaching survival kits to parachutes.)	Tackings Mandatory
	5-14.m.	Install horizontal back strap reinforcement webbing for PLDs	Authorized
	5-14.q.	Installation of Protective Sleeves on torso harness	Authorized
	5-16.c.	Installation of SDU-5/E strobe light on harness	See AFI 11-301/ACC Sup 1
	5-16.d.	Alternate installation of SDU-5/E and pocket on harness	Not Authorized
	5-16.f.	Installation of SRU-16/P minimum survival kit	Authorized
	5-21 (d)	9/P Pull-tab snap	Not Authorized
	5-21.1(e)	9/P Pull-tab snap	Not Authorized
	7-10.e. NOTE	Installation of PLD	Ref AFI 11-301/ACC Sup 1
	9-8.h.	Installation of PLD	Ref AFI 11-301/ACC Sup 1
	9-8.h.6.	Install pull tab to PLD pocket zipper	Mandatory
	9-8.i.	Installation of SDU-5/E strobe light pocket on harness	Authorized
	18-6.c.11.	Attachment of comfort pad (leg strap)	Authorized
	18-9.b.	Installation of PLD PCU-10/P on harness	Mandatory
	18-9.b.10.	Moving of PLD pocket due to INS interference	Authorized
	18-9.e. NOTE	Installation of the SRU-16/P	Authorized
	18-9.f. NOTE	Installation of SDU-5/E survival light	Ref AFI 11-301/ACC Sup 1
	18-9.j. NOTE	Installation of back pad P/N 60D6033	N/A
	18-9.k.	Installation of back pad P/N 58D6354	N/A
	18-9.k.1.	Installation of back pad P/N J117134-1	N/A
	18-9.l.	Installation of lumbar pad, MXU-22/P	N/A
	18-9.n. NOTE	Installation of AN/URT-33 series	Not Authorized
14P3-1-112		NOMEX FLT COVERALLS, AND GLOVES, JACKET, HOOD, WINTER, FLYERS (CWU-17/P JACKET), TROUSERS, FLYERS, COLD WEATHER, CWU-18/P	
	2.4. NOTE	Location of MC-1 knife (or riser cutter) on outer garment	Mandatory
	2.4. NOTE 2	Female bladder relief	Personal Option
	2-14.b.	Rework of Jacket hood.	Not Applicable
	2-16.	Combat Edge rework of jackets	Authorized
	4-1. NOTE	Who will launder garments	Aircrew
	4-6. NOTE	Method of attaching organizational insignias	Unit will use velcro pile

T.O. NUMBER	PARA	ITEM	Unit Position
	4-6. NOTE	Attachment of Velcro tape for garter restraint system	Not Applicable
	4-6.e.	Attachment of knife pocket	N/A
	4-6.f.	Pencil pocket protective flap	Personal Option
	4-6.g.	Stitch down epaulets	N/A
	4-6.h.	Shorten lower leg pocket	Authorized
	4-6.k.	Addition of elastic band	N/A
14P3-1-121		CUSTOM FITTING -- FLYING HELMET ASSY, TYPES HGU-2A/P, -22/P, -26/P, -55/P	
	Table 3-3, 14	Removal of crewmembers names from liner	Mandatory
	4-8.d. NOTE	Storage of helmet on alert aircraft	N/A
14P3-1-131		AIRCREW CHEM-DEFENSE ENSEMBLE	
	1-2.a.(7)(b)	The CWU-77/P coveralls may be used by aircrew members. (page 1-7) NOTE: If CWU-77/Ps are on hand and are serviceable, they will be used to supplement the CWU-66/Ps.	Authorized
	4-4 NOTE 3	Units are authorized <i>minor</i> deviations during detailed in-processing (page 4-19)	Authorized
	5-1.b.	Routine inspection at 180 day intervals.	Mandatory
	5-1.b.NOTE	Frequency of disassembly	Per AFI 11-301V1
	5-8.b. (6)	Top strap attachment tab silicone repair (page 5-14)	Mandatory
	5-13.b.(1)	Filter element installation, annually if installed, biennially if vacuum packed	Authorized per AFI 11-301V1
	5-23.a.	Head strap rework	Mandatory
	5-23.b.	Mask rivet hot spot rework	Mandatory
	5-23.c.	Mask head strap loop rework	Mandatory
	5-23.d.	Chin strap modification	Personal Option
		Installation of CBO mask retention strap assy	Mandatory for aircraft w/ chutes or ejection seats
14P3-1-151		AIRCREW EYE/RESPIRATORY PROT (AERP) EQUIPMENT	
	Page viii NOTE 4	Tie straps may be used in lieu of clamps	Authorized
	4-18. NOTE 2	Spot taping	Authorized
	4-18.m. NOTE 2	Comfort pad for blower	Authorized
	4-22. NOTE	Varying donning/doffing procedures (page 4-16)	Authorized
	5-42.c.	Manifold Assembly Thumb Tab Release Rework	Mandatory
	Table 7-7	Use of 6-Foot extension hose (page 7-18)	N/A
14P3-1-161		COMBAT EDGE EQUIPMENT	
	4-9.b.15.(a)	Tacking of visor straps	Personal Option
	4-9.b.16.	Cutting of straps for trial fitting need not be done.	Authorized
	5-31.f. NOTE	Occluder valve	Authorized

T.O. NUMBER	PARA	ITEM	Unit Position
14P3-4-151		FLYERS HELMET, TYPE HGU-55/P	
	1-2.7.1	Use of High Contrast Visor	Authorized
	1-2.21.	Use of Zetaliner	Authorized
	3-2.7.1.b.	Routing of communication components to the right side for F-16	Personal Option
	3-2.7.2.	Installation of leather covered lightweight earcup	Authorized
	3-2.10.2.	Optional method of installing light-weight bayonet receivers	Authorized
	3-2.10.4.	Optional method of installing off-set bayonet receivers	N/A
	3-2.15.c.2.	Use of black stencil ink	N/A
	Table 3-3.14	Use of tape for marking TPL	N/A
	4-1.3. f.	Tacking of visor strap	Authorized
	5-2.3.1.f.	Tacking of visor strap	Authorized
	5-2.3.5.	Repair of edge beading	Authorized
	5-4.3.	Postflight inspections (Life Support will perform)	Mandatory
	5-4.4.	Document inspection on AFTO Form 334, or computer generated version and suitable pressure sensitive tape attached to the helmet or mask.	Mandatory
	5-5.1.1.a.4.	Painting or refinishing standard bayonet receivers	Not Authorized
14P3-5-81		ANTI-EXPOSURE ASSY, TYPE CWU-21/P OR CWU-21A/P	
	2-9.	Waffle weave thermals	Mandatory
	5-4.d.(6)	Reinforcement of neck and wrist seals	Authorized
	5-4.d.(7)	Rework of CWU-21A/P neck area	Authorized
	7-10.i.	Repairing/patching of pin holes in rubber socks	Authorized
14P3-5-91		CWU-74/P FLYERS ANTI-EXPOSURE COVERALL	
	1-14.	Determination of essential clothing/equipment	Per AFI 11-301V1
	1-16A.	Use of air test device (In lieu of water test device)	Authorized
	3-10A.	Attachment of knife pocket	Optional
	3-10A.h.	Use of water test device	N/A
		Use of water test device	N/A
		Use of water test device	N/A
	5-20.i.	Use of rubber seam tape	Authorized
	5-21.h.	Use of rubber seam tape	Authorized
		Use of water test device	N/A
		Use of water test device	N/A
14P3-6-121		ANTI-G CSU-13B/P	
	2-2.6.	Installation of a 5 inch hunting knife	Not Authorized
	4-3.2. NOTE	Garment re-fit	Ref AFI 11-301/ACC Sup 1

T.O. NUMBER	PARA	ITEM	Unit Position
	5-2.8.	Wear of the garment for 30 days prior to cutting lacing	Not Authorized (Lacings will not be cut)
	5-3.1.	Folding of excess lacing cover	Authorized
	5-3.2	Hand tacking of waist and thigh covers	Not Authorized
	5-3.3.	Altering of lacing covers	Mandatory
	6-1. NOTE	Life Support will launder	Mandatory
	6-3.9	Addition of leather material to lower leg pockets	Mandatory
14S-1-102		USAF FLOTATION EQUIPMENT	
	1.1.a. NOTE	Use of polyethylene interlocking seal bags	N/A
	1-7.c. NOTE	Additional pertinent information on record cards	Mandatory
	5-1. NOTE	Delete, omit, or obliterate information	Mandatory
	5-1.1.2. NOTE	Elimination of preflight inspection of pre-positioned life preservers	N/A
	5-1.1.3. NOTE	Perform a functional test during initial installation inspection	Mandatory
	5-19.5. NOTE	Delete, omit, or obliterate information	Mandatory
14S-1-131		SURVIVAL VEST ASSY	
	1-4.2	Inspection cycle for vest in service, not worn on a daily basis, will be one year +/- 10 days if they have lithium batteries installed with the radio	Mandatory
	2-4.2	Inspection cycle for vest in service, not worn on a daily basis, will be one year +/- 10 days if they have lithium batteries installed with the radio	Mandatory
	2-8.9	Tack pocket tracks	Mandatory
	3-4.2	Inspection cycle for vest in service, not worn on a daily basis, will be one year +/- 10 days if they have lithium batteries installed with the radio	Mandatory
	4-3.2	Inspection cycle for vest in service, not worn on a daily basis, will be one year +/- 10 days if they have lithium batteries installed with the radio	Mandatory
31R2-2PR-101		OPERATION AND MAINTENANCE INSTRUCTIONS, RADIO SET AN/PRC90-1 AND AN/PRC90-2	
	6-7.b. NOTE	Increase minimum service life standards (page 6-2B)	Authorized
31R2-2PRC90-1		RADIO SET, P/N AN/PRC 90-1 AND -2	
	5-17.a. NOTE	Increase minimum service life standards (page 5-7)	Authorized
31R2-2PRC90-2		RADIO SET, PN AN/PRC 90-1 AND RADIO SET AN/PRC 90-2	
		Water immersion test (page 5-25)	Not Authorized
31R4-2URT33-2		RADIO BEACON SET, TYPE AN/URT-33B-1, PN P3-07-0014 TYPE AN/URT-33C/M	
	5-3.	Increase minimum service life on batteries	Authorized

Attachment 3 (Added)**ADDITIONAL ITEMS AUTHORIZED IN KITS OR VESTS**

Item	Authorized Survival Kit	Authorized Vest	Qty
Flashlight Mini-Mag w/batteries	X		1
Water, Flex Pack	X		12
Casualty Blanket (Silver/Green) for Combat Operations	X		1
Wool Ski Hood	X		1
Socks, Wool	X		1
Winter Gloves	X		1
Water Canned	X		1
Foil, Aluminum	X		1
Plastic Sheet (6 X 6)	X		1
Strike Force or Blast Match	X		1
Leatherman Tool	X		1
Sponge, OD	X		2
Sea Marker Dye	X		1
Raft Repair Plugs	X		2
Knife, Survival 5 inch	X		1
Water Bag, 3-pt.	X		1
Candle, Canned	X		1
Match Container with Matches	X		1
AFTTP(I) 3-2.26	X		1
Pouch, Clip 9mm (NOTE 1)		X	1
ENVIS Monocular M-703E (NOTE 1)		X	1

NOTE:

1. Only installed during contingency deployments or as directed

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Commander